

METHOD AND RELATED APPARATUS FOR MAINTAINING DATA STORED IN A DYNAMIC RANDOM ACCESS MEMORY

Abstract

A method and related apparatus for maintaining stored data in a dynamic random access memory includes a processor, a dynamic random access memory (DRAM), a south bridge chipset, and a rechargeable battery device. The south bridge chipset includes a system controller, a buffer, a memory controller, an integrated device electronics controller, and a data conversion circuit. The data conversion circuit converts a hard-disk access command transmitted from the system controller into a memory access command of the memory controller. The memory controller accesses the buffer and the DRAM by executing a memory access command. When the computer system enters a power-saving mode, a switch is turned on allowing the battery device to constantly self-refresh the DRAM for maintaining the data stored in the DRAM. When the computer system powers up, the switch is turned off and the battery device is re-charged.